Botanical Bulletin.

Vol. 1. JUNE, 1876. *No. 8.*

MIAMI UNIVERSITY OXFORD, O.

SOME NOTES FROM PULASKI COUNTY, VA.—During a ramble on the shores of New River I found a third locality of *Pachystima Canbyi*, as follows: We started from Robt. Calfee's down a road to the river, came out at Mr. Howard Calfee's, not far below "*Coster's Ferry*," Pulaski Co., or several miles from Major Graham's Iron Furnace. From Howard Calfee's we strolled *up* the river under the huge rocky cliffs, until we reached a point where a rivulet empties into the river. Here we ascended the steep hillside to a spot called (as usual) after his Satanic Majesty. It is a huge cleft, rent by an earthquake or some rocket of the devil whose name it bears. At the bottom of the cleft, Mr. Forney tells me, he found *Phacelia Purshii*. I noted *Saxifraga Virginiensis*, and *Draba ramosissima* as strange. Now ascending a little above the Devil's Cleft, with your eyes open, *Pachystima* can be found. Along the river bank we saw *Claytonia Caroliniana*, *Hydrophyllum appendiculatum*, a *Lonicera* (*sempervirens?*) on the cliffs, *Rhus aromatica; Taxus baccata; Ruellia; Baptisia astralis;* etc. At Mr. Forney's we have *Diodia; Chrysogonum; Pachystima; Asarum Virginicum* and *macrophyllum; Corydalis; Hydrastis; Rhus aromatica; Draba verna* and *ramosissima; Tradescantia; Ptelea trifoliata; Jussiæa decurrens; Dianthera Americana; Passiflora lutea; Taxus baccata; Negundo; Aplectrum; Asplenium Ruta-muraria; Holcus lanatus*, 30 acres, passim; *Aster oblongifolius; Halesia tetraptera; Silphium perfoliatum; Zanthorhiza; Boykinia; Aralia quinquefolia; Cacalia Suaveolens* and *reniformis*. This rich hill is unchanged from that primeval condition when the productions of nature were of a gigantic type. The animal kingdom has degenerated, but the mineral and vegetable hold their own. The bosom and bowels of the earth are crammed with iron ore, zinc, lead, copper *et id omne genus;* while vegetation luxuriates on the decomposition of such hardy products. I should have directed the notice of the Centennial botanist and geologist to this region, but it would have been unfair to the country at large to sustain the comparison. *Delphinium tricorne* or *azureum* is distended to the utmost limits of its genus, like a fat baby of a few years old weighing over a hundred instead of thirty. Its deep bright blue, or rather purple, is magnificent beyond description. *Erythronium* full as wide as the name just written, with beautiful bright spots.—HOWARD SHRIVER, *April 22d.*

SOME NOTES FROM HERBERT E. COPELAND.—The revelations given by the blunders of Nature have always an interest that her ordinary handicraft does not possess. Through these, it has been said, we learn the plan of the work. The field botanist is constantly given opportunities for these rare insights and learns to record them after forgetting some of great personal value.

As an illustration of the homology between the parts of the flower and the leaf, I have an example in a branch of *Rosa blanda*, that has petals arranged as leaves, alternate and single, but highly colored, while a perfect flower and ordinary leaves are borne higher up.

Bearing on the proof of intergrading of parts are wild double flowers. It is

All communications addressed to John M. Coulter, Hanover, Ind.

Terms:—Subscription $1.00 a year. Single Numbers 10 cents.

not unknown that the best efforts of the florist are often anticipated in the woods. I have three specimens of *Cypripedium candidum* with two lips each, at the expense of the sepals of course. *Sanguinaria Canadensis* is widely variable in these ways. I have one with eighteen petals arranged in several rows, making a most beautiful flower. On the other hand, the number of stamens is often forty or more.

Pubescence in plants is due largely (altogether?) to conditions of growth. Thus in March I brought home *Ranunculus abortivus* and all the stems that grew after its settlement in the house were of the variety *micranthus*. I have also *Phlox divaricata* with smooth and *evergreen* leaves. It may be interesting to collectors to know that *Stellaria pubera* grows here abundantly even in low ground.—*Indianapolis, Ind.*

SOME PLANTS NEW TO THE FLORA OF JEFFERSON COUNTY.—Mr. A. H. Young and the writer have each published a partial list of the flora of Jefferson Co. in the Reports of the State Geological Survey for 1870 and 1874. Since that time many plants have been added to those lists, the most intesting of which I wish to record here. This spring has been one of wonderful vegetation, many species of rare occurrence growing in unexampled abundance, and several having been found never noted before. Early in the spring *Anemone nemorosa*, L. was found growing in a little patch near the summit of a rocky bank along one of our brooks. The little fellow had started modestly, for a dozen plants was all we could count and the most careful search in the neighborhood revealed no others. *Stylophorum diphyllum*, Nutt. a few weeks ago covered acres with its yellow bloom and coarse stems and leaves. *Dentaria diphylla*, L. was found in unusual abundance and beauty. Last spring *Draba verna*, L. was found in considerable abundance, but no specimens have been seen this season. *Raphanus Raphanistrum*, L. has been found taking possession of some of our fields. *Hibiscus Moschevtus*, L. and *Trionum*, L. were both found last season. Two or three specimens of *Waldsteinia fragarioides*, Tratt. were found this spring at Clifty Falls. *Amelanchier Canadensis*, T. & G. was filling the bare woods with its white blossoms early this season in a way to make us suspect that it was not as nearly killed out as we feared. *Ludwigia palustris*, Ell. was found in great abundance last season, along with *Ammania humilis*, Mx. *Zizia integerrima*, DC. was seen for the first time at Heart's Falls about the first of May and seems to have established itself quite firmly. *Symphoricarpus vulgaris*, Mx. grows quite abundantly in one locality known as the Devil's Backbone. *Viburnum molle*, Mx. is blooming profusely this spring. *Valeriana pauciflora*, Mx. is making a greater display now than we have ever seen, covering a whole hillside with its graceful stems and beautiful flowers. The beautiful and showy *Aster azureus*, Lindl., found sparingly in 1874, was obtained in abundance last season; also *A. Tradescanti*, L., *A. miscr*, L., *A. prenanthoides*, Muhl. in great abundance, and *A. Novæ-Angliæ*, L. A fine patch of *Brachychæta cordata*, T. & G. was found at Clifty Falls and is a beautiful and well marked species. *Silphium trifoliatum*, L. has been found sparingly. Two new *Helianthi* were found, *H. tracheliifolius*, Willd. and *H. doronicoides*, Lam. A few specimens of *Mulgedium acuminatum*, DC. have been secured. It was with considerable surprise that we found *Chimaphila maculata*, Ph., in the early part of May, growing in a dense woods. Our *Ericaceæ* are so few and far between that any addition to the short list is quite an acquisition and is highly appreciated. *Ilex mollis*, Gray, is abundant this spring. A single specimen of *Plantago sparsiflora*, Mx. has been found, but more will undoubtedly be secured. *Gerardia purpurea*, L., was discovered in some out of the way fence corners. *Phacelia bipinnatifida*, Mx. seems to be very uncertain in its growth. For two seasons I watched closely for it and did not secure a single specimen, but this spring our hillsides are fairly blue with it and its presence may be perceived by the peculiar pungent odor rising from it. *Phyllanthus Carolinensis*, Walt. was found in great abundance last season. *Comandra umbellata*, Nutt. was found growing in a thicket this spring. *Quercus palustris*, Du Roi. is common, and that mixed up species *Q. falcata*, Mx. which stands between *Q. nigra* and, *Q. triloba* and which has

growing on it here the leaves of all these three species. *Pogonia pendula*, Lind., was found last summer, and this spring some beautiful specimens of *P. verticillata*. Nutt. were secured. *Medeola Virginica*, L. has been found this season in small patches, but promises to spread. *Uvularia sessilifolia*, L. is blooming only in tolerable abundance. Late last year *Heteranthera reniformis*, R. & P. was found occupying two or three swampy places. Such are a few of the additions made within a year to the flora of Jefferson County and we hope that a season that has begun so auspiciously as this one may bring us many new and rare forms.—ED.

The Sixth Number of Contributions to American Botany by Sereno Watson, issued February, 1876, is divided into three parts. The first part is on the Flora of Guadalupe Island, Lower California, giving us the position of the island and the resemblances of its flora to those of other regions. The author concludes that the flora is to be considered a part of that of California. The number of species collected was 131. Of exogenous plants there were 102, of endogenous 8. The remaining 21 were Ferns, Mosses and Liverworts. The second part gives the list of this collection with Dr. Palmer's notes. The third and most important part consists of description of new species of plants, chiefly Californian. There are also revisions of four genera. *Trifolium* with 39 species, *Lathyrus* with 13 species, *Megarrhiza* with 5 species and *Peucedanum* with 20 species.

SOME OREGON PLANTS.—The following interesting little list of plants have just been received by the Editor from L. W. Lee, Esq., of Josephine County, Oregon, and determined by Prof. Porter:

Delphinium Menziesii, DC.—A starveling specimen.

Anemone nemorosa, L.—Form?

Ranunculus Nelsonii, Gray.

Dentaria tenella, Ph.

Viola glabella, Nutt.—With rather large stipules!

Claytonia linearis, Hook.

Erodium cicutarium, L'Her.—Dwarfs.

Ribes Menziesii, Pursh. (*R. Californicum*, Hook. and Arn. *R. subvestitum*, H. & A.)

Tellima parviflora, Hook.—Watson says "flowers *white*"; Hooker, "deep rose-color," as these appear to have been.

Oreodaphne Californica, Nees.

Gaultheria Shallon, Ph.

Dodecatheon Meadia, L.—Form.

Synthyris reniformis, Benth. (*Wulfenia reniformis*, Hook., *Fl. B. Am. t.* 171.)

Sisyrinchium tinctorium, H. B. K.—A most beautiful flower. My specimens from Hall (in fruit only) through the alcohol used in poisoning have left a dark stain on the paper.

Erythronium grandiflorum, Ph.—?

NOTES ON HEPATICOLOGY BY C. F. AUSTIN.—LEJEUNIA HILDEBRANDI, *n. sp.*—Caule debili prostrato tenui, foliis laxis distantibus lanceolatis obtuse subacuminatis laxissime areolatis convexis erecto-patentibus, lobulo longiusculo tumidulo, foliis involucralibus subconformibus, amphigastriis nullis, perianthio minuto subsessili lævi.—*Lejeunia longifolia*, Vol. V, p. 17 of the BULLETIN OF THE TORREY BOTANICAL CLUB. On *Dumortiera denudata*, Sandwich Islands.

L. longifolia Mitt. has subelliptical leaves from a narrower often subcostate base, and of a less lax texture. *L. elliptica*, L. & L., another closely related species, has shorter obovate-elliptical leaves, a narrower perianth, etc.

LEJEUNIA RAVENELII, *n. sp.*—Caule brevi flexuoso supra convexo, foliis imbricatis obdeltoideo-orbicularibus valde convexis, lobulo minuto subinflato, amphigastriis minutis rotundis bilobis, lobis (sinuque) obtusis, reti foliorum magno valde obscuro uniformi, cellulis supra convexis, intercalaribus angustis: dioica, flore fœm. et fructo ignoto.

On the bark of trees, "Seaboard of South Carolina," *Ravenel* (1874). A small species, of a yellowish color. Looks much like a small form of *L. clypeata*, which it also resembles very closely in its opake leaf-cells; but is readily separated from it by its more convex leaves and bilobed amphigastria.

LEJEUNIA CAROLINIANA, *n. sp.*—Caule perbrevi (1-2 lin.) flaccido; foliis rotundis convexis squarroso-patentibus subverticalibus confertis sed laxe imbricantibus in siccis margine apice valde decurvis, lobulo parvo subinflato, rete e cellulis mediocribus poriformibus illis versus marginem sensim minoribus intercalaribus latissimis formato; amphigastriis rotundis bifidis; colesula pyriformi subcompresso quinquangulato, angulis nudis: monoica; amentula masc. magna terminali et laterali.—With *Frullania Kunzei*, var. in AUST. Hepat. Exsic. from Mobile, Alabama, *Sullivant* (1845). About the size of *L. Ravenelii*, but of a subfuscous color, and rather flaccid habit.

LEJEUNIA LÆTE-FUSCA, *n. sp.*—Caule repente 5–8 lineas longo; foliis magis minusve imbricatis latissime falcato-ovatis patentibus leniter convexis deplanatis obtusis (in medio fere usque ad basim cellulis 2 vel 3 multum ampliatis) maculatis, lobulo minuto subovato valde inflato, reti basilari et centrali magno versus marginem sensim decrescenti, amphigastriis parvis orbiculatis bifidis, segmentis erectis acutiusculis: colore læte-fusca: cætera desunt.

A few stems of this apparently very distinct species were found in a southern collection, made by Mr. Sullivant in 1845; mixed with *L. ovata*, TAYL. and *L. Læte-virens*, N. & M. About the size of *L. flava*, (SWARTZ). Readily distinguished by its fuscous color, and by the 2–3 much enlarged cells in the center next to the basal row.

LEJEUNIA OBCORDATA, *n. sp.*—Caule arcte repens debili prolifero-ramoso brevi tenui, foliis ratione caulis magnis elliptico-rotundis subimbricatis patenti-subverticalibus integerrimis convexis, lobulo mediocri inflexo tumidiusculo margine parce dentato, rete magno discreto, amphigastriis nullis, perianthio parviusculo latissime obcordato bialatove compresso margine versus apicem crenulato ore minute mammillato, involucri foliis quam perianthio dimidio brevioribus æquilobis obovatis obcuneatisve integerrimis; inflorescentia monoica, amentulis numerosis brevibus tectis.

On some small fern, with *Mastigobryum patens*, MONT. (*M. parvistipulum*, AUST.), Sandwich Islands. Well characterized by the perianth, which is compressed, much expanded and broadly emarginate at the apex.

FOSSOMBRONIA MACOUNI, *n. sp.*—Caule inerassato brevissimo; foliis imbricatis verticalibus incurvis valde cristato-undulatis et plicatis acute inciso-dentatis; colesula parva cupulato-infundibuliformi, margine crenato et subundulato; capsula magna longiuscule exserta, elateribus crassiusculis bispiris longiusculis, sporis parviusculis subopacis densissime minutissime papillosis.

Portage La Lochs, Lat. 57, Sept. 1875, *Macoun*. Readily distinguished by the vertical and incurved leaves, short wide-mouthed colesula and minutely and closely papillose spores. Colesula with the short base leafy-squamulose.

FOSSOMBRONIA WRIGHTII, *n. sp.*—In adspectu *F. angulosæ* valde affinis sed differt: sporis valde opacis dense minute tuberculatis, elateribus longioribus angustioribus, foliis magis acute angulatis, etc. On riparian rocks, Cuba, *Wright*.

Fossombronia Cubana (GOTT.) AUST.—Differt ab *F. angulosa* proxima; foliis latioribus, sporis minutius reticulatis, elateribus angustioribus.—*F. pusilla*, var. *Cubana*. GOTTSCHE in Wright's Hepaticæ Cubenses.—*F. Texana*, LINDB. in Act. Soc. Fenn. X, p. 533. Texas and Cuba, *Wright*.

A few specimens of the Texas plant were distributed by me, in the Hepat. Exsic., under No. 118 (*F. longiseta*). The Texas plant is about the size of ordinary forms of *F. angulosa*; and the Cuban plant appears to differ from it (the Texas plant) only in size, being 2 or 3 times larger.